stability coefficient was chosen equal to 2.8. The collector loads are formed by tuned IC-circuits. A crystal resonator is connected in series with the positive feedback circuit. The auxiliary generators differ from the main one inasmuch as they contain no crystal generator in the positive feedback circuit, and the parameters of their IC-circuits are not the same. The generator for channel 1/3 is a 6.4 kc carrier generator. Another particularly important junction point of the system is the group repeater used in unattended stations. The principal features of this transistorized four-stage amplifier (also connected in a common-emitter arrangement) are the linearity of the response and the low level of noises. The thorough design of the whole system made it possible to reduce the noise in the repeaters to a sufficiently low level (not exceeding - 14.5 neper in the band of one channel). The frequency and amplitude characteristics of the repeater are reproduced in the article, as well as its connecting diagram. Thanks to the use of transistors, the whole set for the three-channel system is highly economical, the total average current drain being only 45 ma in the intermediate stations, and 120 ma in the terminal ones, which corresponds, at 24 volts, to less than 1 watt per channel. There are 6 figures, 1 table and 2 Soviet-bloc references.

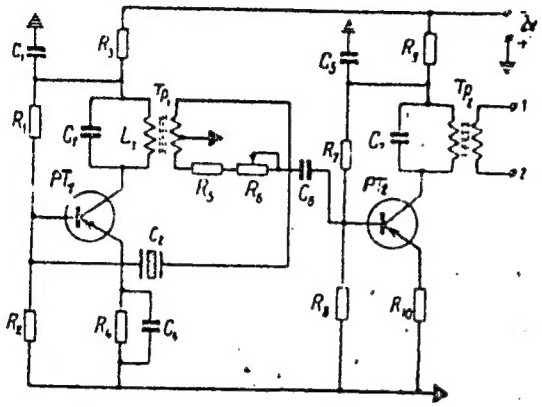
SUBMITTED: June 22, 1960

Card 3/4

22210
S/106/61/000/001/005/008
A055/A033

High-frequency telephony system

Figure 2:



Card 4/4

SUKHODOYEV, I.V., inzh.

New three-channel apparatus of high-frequency district communication systems. Vest. sviazi 21 no.1:8-10 Ja '61. (MIRA 15:5)
(Telephone)

SUKHODOYEV, V.S., assistent

Signaling of the clearance of a switch sector by the tail end of an incoming train. Avtom., telem. i sviaz' 9 no.3:41-42 Mr '65. (MIRA 18:11)

1. Kafedra "Zheleznodorozhnyye stantsii i uzly" Leningradskogo instituta inzhenerov zheleznodorozhnogo transporta.

SUKHODOYEVA, G.S.

Study of the natural focus of Q fever in the mountainous region of Trans-Ili Ala-Tau. Zdrav. Kazakh. 21 no.8:54-59 '61. (MIRA 14:9)

1. Iz Instituta krayevoy patologii AN Kazakhskoy SSR.
(TRANS-ILI ALA-TAU--Q FEVER)

SUKHODOYEVA, G.S.

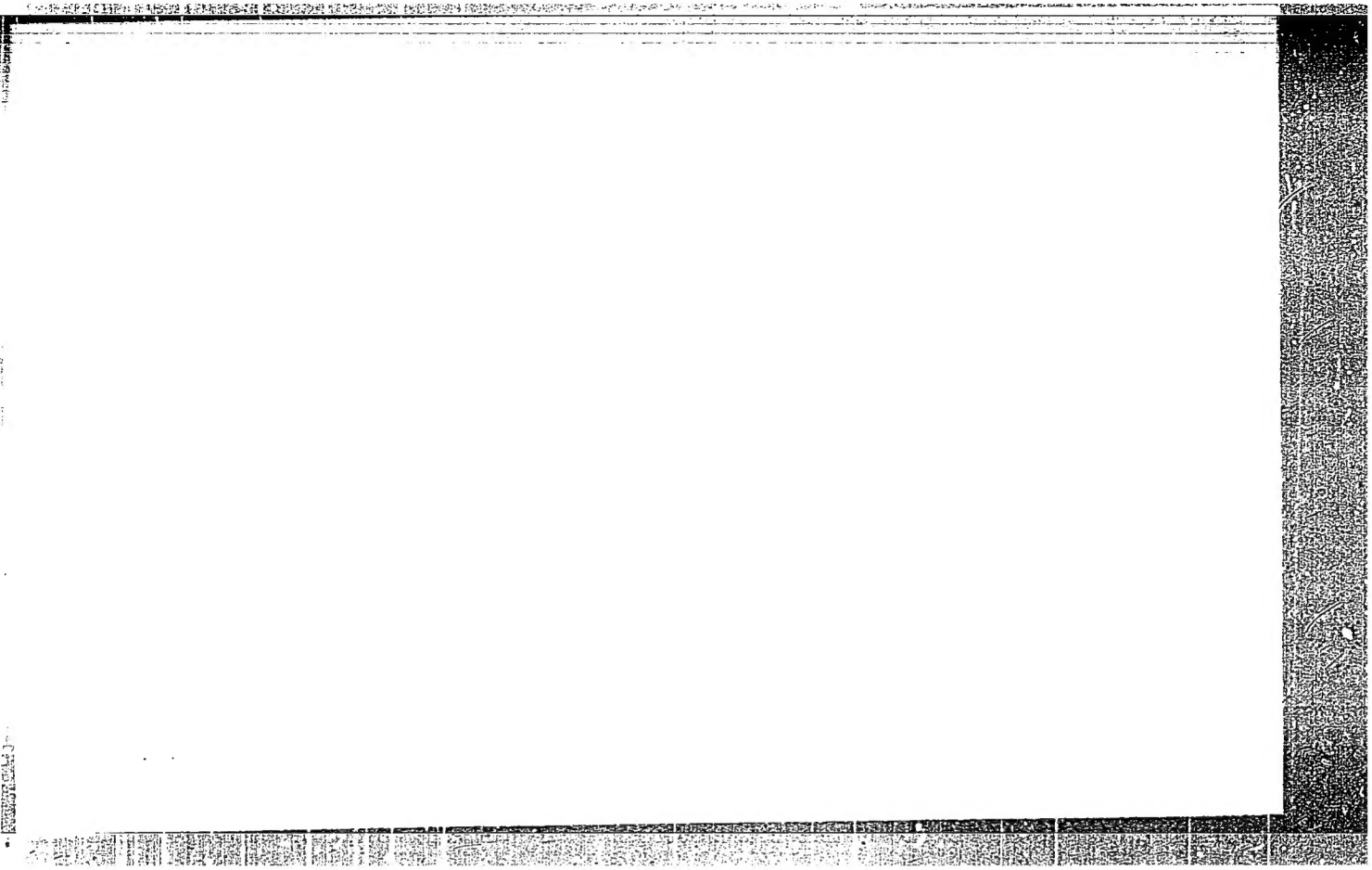
Studies on a natural focus of Q-fever in Trans-Ili Alatau. Zhur. mikrobiol., epid. i immun. 33 no.7:28-32 Jl '62. (MIRA 17:1)

1. Iz Instituta krayevoy patologii AN Kazakhskoy SSR i Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.

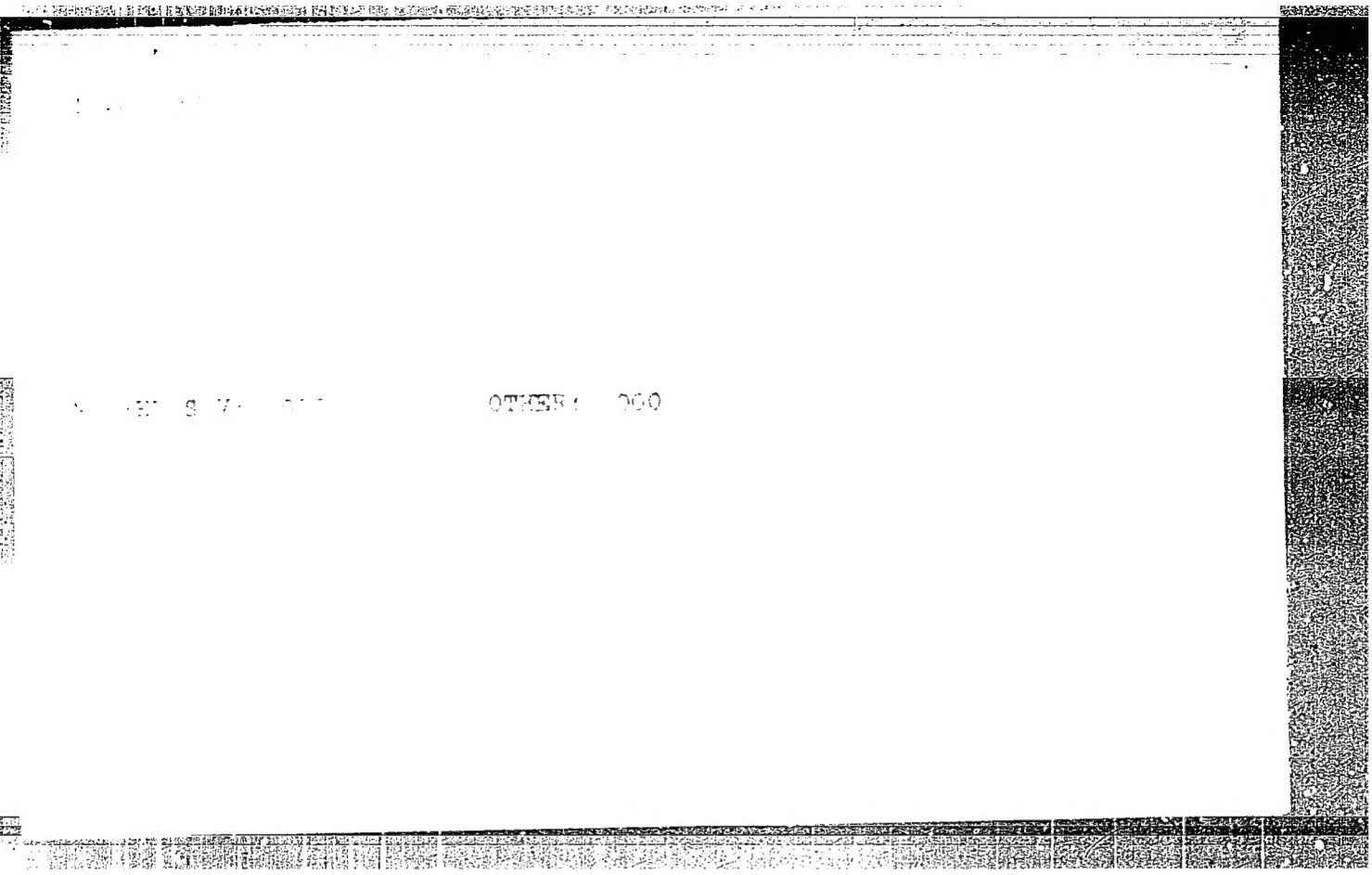
SUKHODOYEVA, G.S.

Characteristics of the properties of Rickettsia burneti from a natural focus in southern Kazakhstan. Zhur. mikrobiol. epid. i immun. 40 no.5:84-89 My '63. (MIRA 17:6)

1. Iz Instituta krayevoy patologii AN Kazakhskoy SSR i Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.



APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001653810020-5"



SOV/70-4-4-14/34

AUTHORS: Ioffe, Yu.K. and Sukhodrev, A.M.

TITLE: A Scintillation Counter for Soft X-rays and Certain Results of its Application in a Fast-operating Diffractometer

PERIODICAL: Kristallografiya, 1959, Vol 4, Nr 4, pp 554-562 (USSR)

ABSTRACT: A scintillation counter and new electric circuits have been fitted to the URS50I diffractometer increasing its speed by a factor of 8 and its accuracy by a factor of 3. The chief difference is the replacement of the Geiger counter with a dead time of ~ 1 μs by a NaI(Tl) scintillation counter with a deadtime of 1-10 mμs.

The maximum count rate of the latter is about 10^6/sec and the luminosity of contemporary X-ray tubes is too low to use this speed properly. The advantages of the scintillation counter are: 1) resolving time of $\sim$0.25 μs, permitting a count rate of 50 000/sec; 2) near 100% efficiency as against 45% for CuK_α and a Geiger tube; 3) energy discrimination. A serious difficulty with the scintillation counter is that background pulses from

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A Scintillation Counter for Soft X-rays and Certain Results of its Application in a Fast-operating Diffractometer

thermally-emitted electrons are of the same height as those it is required to count. A diagram of the geometry used with an FEU-29 photomultiplier is shown. The crystal is cut into a disc 2 mm thick, operations being performed in a dry atmosphere. A 0.2 mm thick Be window is used with a 1 μ Al foil for reflecting the light. The window diameter is 30 mm. The photomultiplier has a sensitivity of 16 photoelectrons per 100 light quanta, the background pulses are less than 12 mV and the resolution is better than 8.5%.
The counters were tested in the diffractometer with Cr, Cu and Mo radiation monochromatised by reflection from a quartz crystal. Two methods were used for separating signal impulses from the background: a) by pulse height on an oscillograph screen and b) by pulse height discriminator circuits with a channel width of 1.5 V. The efficiencies were 75%, 90% and 98% for Cr, Cu and Mo radiations, respectively. The background was about 0.5 counts per sec. For the three wavelengths, the

A Scintillation Counter for Soft X-rays and Certain Results of its Application in a Fast-operating Diffractometer

efficiencies are 1.2, 2.5 and 10 times better than for an argon-filled Geiger counter. A block diagram of the electrical circuits of the diffractometer is given. An overall increase in speed of eight times in the operation of the diffractometer was achieved together with gains in reliability and stability. The detection of weak lines is three times better. Specimen diffractograms are reproduced showing the improvements. Acknowledgments are made to M.I. Teumin. There are 5 figures and 11 references, of which 7 are Soviet, 1 German and 3 English.

SUBMITTED: November 19, 1958

Card3/3

L 28861-66 EWP(k)/EWT(m)/T/EWA(d)/EWP(t)/ETI IJP(c) DJ/JD/HW

ACC NR: AP6010497 SOURCE CODE: UR/0201/65/000/003/0093/0095

AUTHOR: Severdenko, V. P.; Muras, V. S.; Sukhodrev, E. Sh.

ORG: none

TITLE: Butt-free extrusion of tool steels

SOURCE: AN BSSR. Vestsi. Seryya fizika-tekhnichnykh navuk, no. 3, 1965, 93-95

TOPIC TAGS: tool steel, metal extrusion, hot die forging, solid lubricant / 9KhS tool steel, R18 tool steel

ABSTRACT: Hot extrusion usually is accomplished in such a way that at the end of the process of deformation a part of the forging (the butt) always remains in the container and die under the punch (Fig. 1). In most cases the butt is a production waste which must be removed after the product is ejected from the die assembly. This restricts the possibilities for using such a highly effective forming method as hot extrusion, particularly as regards the fabrication of intricate shapes from expensive alloys and high-alloy steels. In this connection, the authors developed a method of butt-free hot extrusion of solid and hollow shapes from structural and high-alloy tool steels (9KhS, R18, etc.). The principle of this method is as follows: an intermediate link or "insert" (Fig. 2) is placed in between the punch and the forging; the height of the insert is not lower than that of the die. The material of this insert

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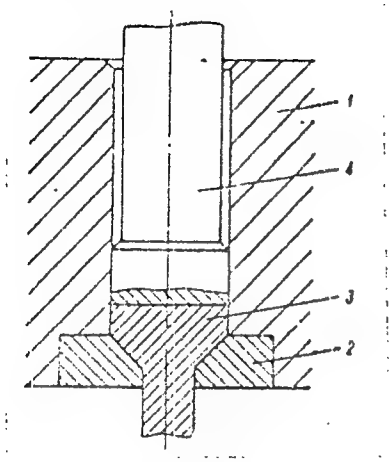

Fig. 1. Schematic of butt-involving extrusion:

1 - container; 2 - die; 3 - butt; 4 - punch

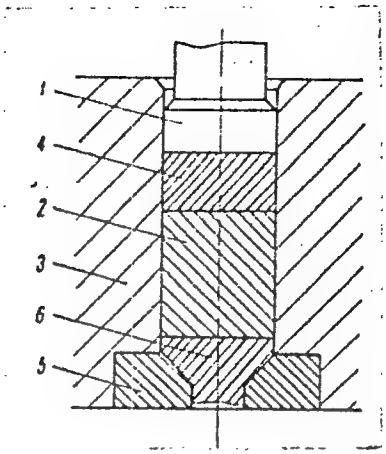

Fig. 2. Schematic of butt-free extrusion:

1 - punch; 2 - forging; 3 - container; 4, 6 - inserts; 5 - die

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001653810020-5"

ACC NR: AP6010497

must withstand considerable loads without a change in its properties, its strength should be lower than the strength of the extruded metal and it should display the qualities of a lubricant. So far, of the materials investigated for this purpose, the best results were displayed by a graphite-clay-silica mixture subjected to thermal or chemical hardening after its molding; remains of the carbon electrodes of electric arc furnaces also are suitable. This development not only assures a successful butt-free hot extrusion but also displays other positive aspects. Thus, early during the extrusion part of the "insert" flows into the gap between the punch and the container and, throughout the distance traveled by the punch, provides a uniform layer of lubricant, which completely precludes jamming of the punch. Toward the end of the extrusion the material passes through the die and disintegrates into powder, which facilitates its removel for re-use. This technique also improves the conditions for automating the process of hot extrusion. Further, owing to the attendant improved lubricability of the die and product surfaces and shorter time of contact between the product and the die, galling is reduced and thus the wear of die also is reduced while the dimensional stability and surface quality of the extruded products are at the same time improved. With the aid of this technique the authors successfully hot-extruded solid and hollow reamers of 9KhS, R18 and 40Kh steels in crank presses. It turned out that this technique assures metal savings of 30-70%, reduces production cost, increases productivity, and markedly improves the quality of the tools (reamers, countersinks, screw taps) thus extruded. Orig. art. has: 2 figures.

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 002

[redacted], V. B.

Sukhodrev, V. B. "From the personal recollections on Academician M. M. Burdenko (Period of the Great Patherland War)," Zdravookhraneniye Sov. Latvii, 1945, Symposium 2, p. 161-70

SO: U-3550, 16 June 53, (Letopsis 'Zhurnal 'nykh Statey, No. 5, 1949)

SUKHODREV, M.B., redaktor

[Asia; physical map] Aziia; fizicheskaia karta. Otvetstvennyi redaktor Sukhodrev, M.B. Moskva, 1949. (MLRA 7:6)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye geodezii i kartografii.
(Asia--Maps, Physical)

SUKHODREV, M. B.

YUSTUS, A.I., redaktor; SUKHODREV, M.B., redaktor

[Europe; political map. School map of January 1, 1948] Evropa: politicheskaia karta. Uchebnaia karta 1 ianv. 1948. Otvetstvennye redaktory IUstus, A.I.i Sukhodrev, M.B. Moskva, 1949. (MLRA 7:6)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye geodezii i kartografii.
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[Europe; political map. School map of January 1, 1950] Evropa: politicheskaia karta. Uchebnaia karta 1 ianv. 1950 g. Otvetstvennyi redaktor Sukhodrev, M.B. Moskva, 1951. (MLRA 7:6)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye geodezii i kartografii.
(Europe--Maps)

LAPSHINA, T.M.; SOLDATOV, S.N.; SUKHODREV, M.B.

Representing settlements on school geography maps. Geod.i kart. no.7:50-60 S '56. (MLRA 9:11)

(Cartography)

SUKHODREV, M.B.; BLYUGER, A., red.; MIRONOV, A., tekhn. red.

[Baldone Health Resort] Kurort Baldone. Riga, Latviiskoe gos. izd-vo, 1959. 63 p. (MIRA 14:12)
(BALDONE--HEALTH RESORTS, WATERING PLACES, ETC.)

ROSTOTSKIY, I.B., dotsent; SUKHODREV, M.B.

Problems of health protection for women in specialized Russian literature. Sov. zdrav. 19 no.6:82-86 '60. (MIRA 13:9)
(WOMEN—HEALTH AND HYGIENE)

SUKHODREV, M.B. (g.Klimovsk, Moskovskoy oblasti)

Nikolai Aleksandrovich Gerasimov and his role in the development of industrial medicine in Moscow Province. Fel'd i akush. 25 no. 10:42-46 O '60. (MIRA 13:10)
(GERASIMOV, NIKOLAI ALEKSANDROVICH, 1879-1943)

SUKHODREV, M.B. (Klimovsk, Moskovskoy oblasti)

Thirty-five years of service to the people, to Soviet public health.
Sov. zdrav. 21 no.4:35-39 '62. (MIRA 15:5)
(PUBLIC HEALTH)

SUKHODREV, M.B.

Eva Vikent'evna Diatchik. Med. sestra 21 no.4:57-58 Ap '62.
(MIRA 15:4)

(DIATCHIK, EVA VIKENT'EVNA)

SUKHODREV, M.D.

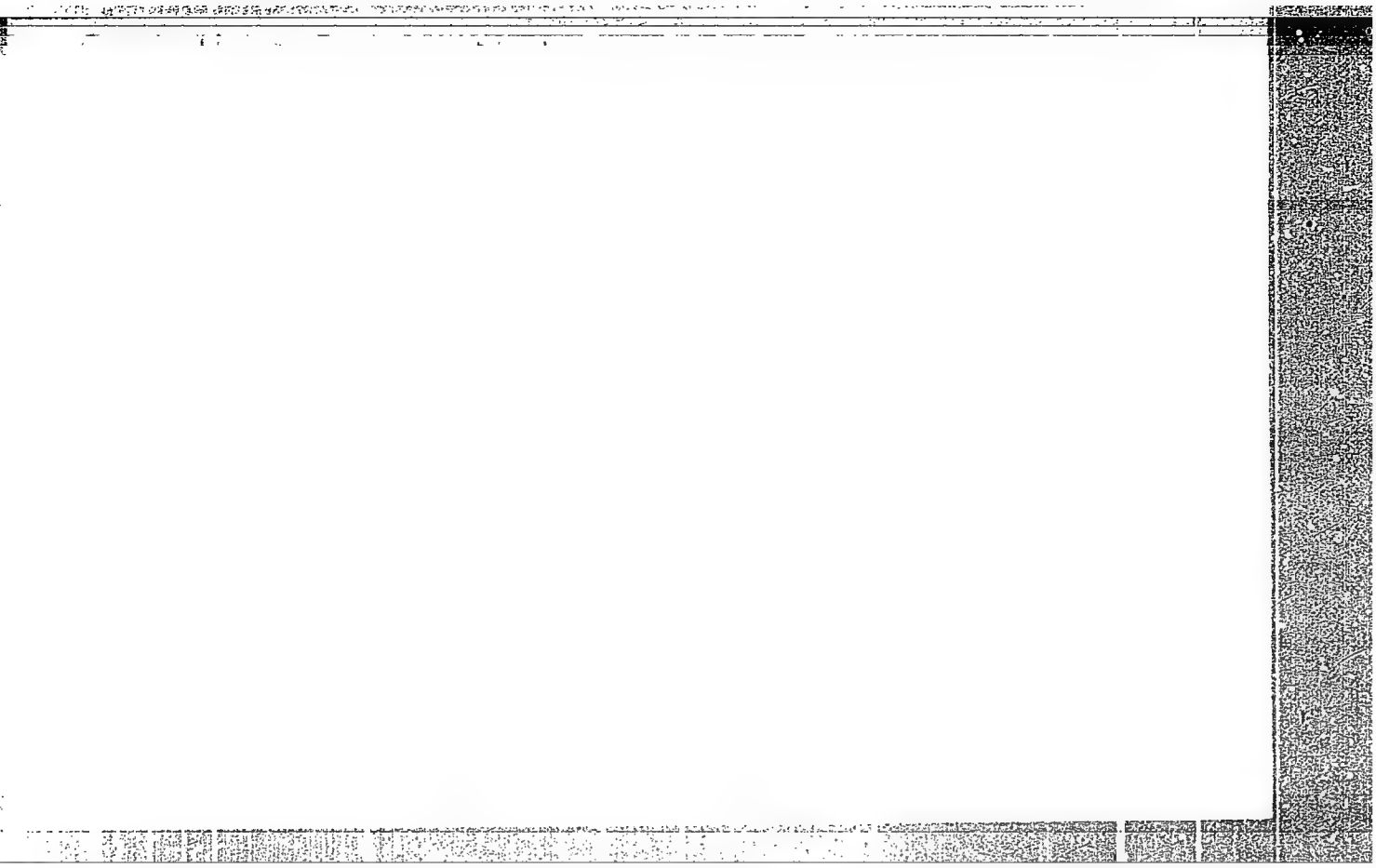
Methodology of processing the materials of high-speed motion-picture photography of water jets. Zap. LGI 41 no.1:91-93 '59. (MIRA 16:5)

(Jets--Fluid dynamics)
(Motion-picture photography, High-speed)

SUKHODREV N.K.

MANDEL'SHTAM, S.L.; SUKHODREV, N.K.

Elementary processes in the spark discharge channel. Zhur.eksp. i teor.fiz. 24 no.6:701-707 Je '53. (MLRA 7:10)
(Electric spark) (Electric discharges through gases)



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MANDEL'SHTAM, S.L.; SUKHODREV, N.K.

Applicability of Kirchoff law to the emission of gaseous discharge plasma. Izv. AN SSSR Ser. fiz. 19 no.1:11-14 Ja-F '55. (MLRA 8:9)

1. Fizicheskiy institut imeni P.N.Lebedeva Akademii nauk SSSR (Spectrum analysis) (Spectrometer)

24(7) PHASE I BOOK EXPLOITATION SOV/1700

Lvov. Universitet

Materialy X Vsesoyuznogo soveshchaniya po spektroskopii, 1956. t. II: Atomnaya spektroskopiya (Materials of the 10th All-Union Conference on Spectroscopy, 1956. Vol 2: Atomic Spectroscopy) [Lvov] Izd-vo L'vovskogo univ., 1958. 568 p. (Series: Its: Fizicheskiy sbornik, vyp. 4(9)) 3,000 copies printed.

Additional Sponsoring Agency: Akademiya nauk SSSR. Komissiya po spektroskopii.

Editorial Board: G.S. Landsberg, Academician, (Resp. Ed.); B.S. Neporent, Doctor of Physical and Mathematical Sciences; I.L. Fabelinskiy, Doctor of Physical and Mathematical Sciences; V.A. Fabrikant, Doctor of Physical and Mathematical Sciences; V.G. Koritskiy, Candidate of Technical Sciences; S.M. Rayskiy, Candidate of Physical and Technical Sciences; L.K. Klimovskaya, Candidate of Physical and Mathematical Sciences; V.S. Miliyanchuk (Deceased), Doctor of Physical and Mathematical Sciences; A.Ye. Glauberman, Doctor of Physical and Mathematical Sciences; Ed.: S.L. Gazer; Tech. Ed.: T.V. Saranyuk.

PURPOSE: This book is intended for scientists and researchers in the field of spectroscopy, as well as for technical personnel using spectrum analysis in various industries.

COVERAGE: This volume contains 177 scientific and technical studies of atomic spectrography presented at the 10th All-Union Conference on Spectroscopy in 1956. The studies were carried out by members of scientific and technical institutes and include extensive bibliographies of Soviet and other sources. The studies cover many phases of spectroscopy: spectra of rare earths, electromagnetic radiation, physicochemical methods for controlling uranium production, physics and technology of gas discharge, optics and spectroscopy, abnormal dispersion in metal vapors, spectroscopy and the combustion theory, spectrum analysis of ores and minerals, photographic methods for quantitative spectrum analysis of metals and alloys, spectral determination of the hydrogen content of metals by means of isotopes, tables, and atlases of spectral lines, spark spectrographic analysis, statistical study of variation in the parameters of calibration curves, determination of traces of metals, spectrum analysis in metallurgy, thermochemistry in metallurgy, and principles and practice of spectrochemical analysis.

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Materials of the 10th All-Union Conference (Cont.) SOV/1700

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Sukhodrev, N.K.

apparatus primarily influencing the reliability of electric systems, especially d-c control systems. Their physical, thermal, mechanical and chemical processes have still not been well analyzed. References are given at the end of most of the reports.

TABLE OF CONTENTS:

According to the author, ideal smooth surfaces of mica protrusions measure 20 A, on the best quartz crystal 100 A, on highly polished metal surfaces 0.05 - 0.1 micron, and on rough metal surfaces 100-200 microns. Moreover, the machined surfaces usually have a wavy structure. The author has devoted his paper to finding methods of calculating the actual area of contact of surfaces. After a detailed theoretical and practical analysis he derives formulas for practical use by designers. There are 6 references, of which 5 are Soviet and 1 English.

SUKHODREV, N. K. Cand Phys-Math Sci -- (diss) "On the excitation of spectra in spark discharges." Mos, 1959. 12 pp (Acad Sci USSR. Physics Inst im P. N. Lebedev), 150 copies. Bibliography at end of text (18 titles) (KL, 52-59, 116)

SOV/ 51-6-6-2/34

24(3), 24(7)

AUTHORS: Sukhodrev, N.K. and Mandel'shtam, S.L.

TITLE: On the Temperature of Electrode Vapours in a Spark Discharge (O temperature parov elektrodov v iskrovom razryade)

PERIODICAL: Optika i spektroskopiya, 1959, Vol 6, Nr 6, pp 723-728 (USSR)

ABSTRACT: Vapour temperatures in a spark are usually assumed to be equal to electron temperatures of atoms and ions of the vapour. Electron temperature can be determined from the relative intensity of two or more spectral lines, provided atoms are distributed in excited levels according to Boltzmann's law. Earlier measurements (Refs 2, 3) yielded values ~10 000°K for temperatures of electrode vapours in electric sparks; these values refer to colder (outer) parts of vapour clouds ("flames"). The present paper discusses determination of temperatures in hotter parts of vapour clouds. Al III, Sn IV and Si IV lines were used (Table 1). Aluminium, tin and silicon were used because their atoms have sufficiently high ionization and excitation potentials to allow determination of temperatures above 10 000°K. A glass spectrograph ISP-51 was used for Al III lines (visible region) and a quartz spectrograph ISP-22 was used for Sn IV and Si IV lines (ultraviolet region). The apparatus used is shown in Fig 1. The image of a spark S_1 was focused on a spectrograph slit via an intermediate slit d a concave mirror O_2 and a rotating plane

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On the Temperature of Electrode Vapours in a Spark Discharge

mirror M_1. The latter was rotated at 1-3 mm/sec producing a time scan (display) of the spark on a recording film in the spectrograph. The time resolution of the spark spectra ranged from ~0.04 to 0.1 μsec. Sparks were synchronized with rotation of M_1 by means of a device, shown at the bottom of Fig 1, which ensured that a spark at S_1 was produced when the image of S_1 was focused at the spectrograph slit. The spark discharge circuit parameters were: C = 0.01-1 μF, L = 2-3000 μH. The voltage across the spark gap S_1 was 15 kV and the distance between electrodes was 2.5 mm. A record of a spectrum obtained between tin electrodes is shown in Fig 2; it contains Sn IV, Sn I, N II and O II lines. The results are given in Tables 2-6. Table 2 refers to sparks between tin electrodes (Sn IV lines). The results of Table 3 (Sn IV lines) were obtained with one tin and one copper electrode. Table 4 gives temperatures deduced from Sn IV and N II lines. Table 5 gives the results obtained with one aluminium or 10%-Al bronze electrode (Al III lines). Table 6 gives temperatures deduced from experiments with "silumin" electrodes containing 10% Si (Si IV lines). The temperatures deduced from Sn IV lines were ~28 000°K, from Al III lines they were 30 000°K and from Si IV lines they were 35 000°K. Because of high scatter of the results

it was impossible to say whether the differences between these three sets of temperatures were due to a definite cause or accidental. Since the spark-channel temperature, deduced from N II and N III lines, is ~35 000°K, the results obtained suggest that tin, aluminium and silicon vapours were heated and excited in the spark channel itself. Acknowledgments are made to L.P. Malyavkin and V.K. Bardin for their help in experimental work. There are 3 figures, 6 tables and 13 references, 6 of which are Soviet, 2 English, 1 German and 4 international.

SUBMITTED: July 8, 1958

SUKHODREV, N.K.

Spectrum excitation in a spark discharge. Trudy Fiz. inst. 15:123-177 '60. (MIRA 14:7)
(Electric discharges through gases)

S/504/61/015/000/002/002
B102/B104

24.6200 (1482, 1160)

AUTHOR: Sukhodrev, N. K.

TITLE: Spectrum excitation in a spark discharge

PERIODICAL: Akademiya nauk SSSR. Fizicheskiy institut. Trudy, v. 15, 1961, 123 - 177

TEXT: This dissertation for the degree of Candidate of Physical and Mathematical Sciences, written under the supervision of Professor S. L. Mandel'shtam, Doctor of Physical and Mathematical Sciences, was defended at the Fizicheskiy institut im. P. N. Lebedeva AN SSSR (Physics Institute imeni P. N. Lebedev, AS USSR) on December 21, 1959. The purpose of the investigations, which were carried out in the laboratoriya spektroskopii FIAN (Spectroscopy Laboratory of FIAN), was to clarify the excitation mechanism of the spectrum - the ionization and the excitation of air atoms and of the atoms of the vapors of the electrode material. Measurements were only made on spark discharges in air under atmospheric pressure. The dissertation is divided into

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Spectrum excitation in a...

four chapters: 1) Elementary processes of excitation and ionization of atoms in the spark channel (review of publications, discussion of the hydrodynamical theory of the development of the spark channel, developed at FIAN; discussion of theoretical results); 2) description of the measuring technique and of the experimental arrangement used to measure the temperature in the spark discharge (arrangement and electronic equipment are shown in Figs. 4 and 5. ИСП-51 (ISP-51) and ИСП-22 (ISP-22) spectrographs were used. Pictures were taken with Agfa "blaurapid" spectral plates); 3) presentation and discussion of the results of temperature measurements (mean electron temperature, Te = 33,000°K; description of additional measurements on powerful discharges, carried out jointly with Professor V. V. Burgsdorf and A. S. Maykopar at the test stand of TsNIEL in the Leninskaya podstantsiya Mosenergo (Lenin Branch Station of Mosenergo) with an ИСП-65 (ISP-65) spectrograph; discussion of results); 4) investigation of electrodic processes in the spark discharge (experimental and theoretical; microphotographs). Following are the most important results: 1) The distributions of atoms in relation to excited levels and degree of ionization correspond to Boltzmann's or Saha's formula with the electron temperature as a

Spectrum excitation in a...

parameter. These distributions are attained after about 10^{-7} sec. Since the gas temperature and electron temperatures are equilibrated within the same time, the plasma in the spark channel is characterized by one single temperature T after about 10^{-7} sec. 2) The temperature in the spark channel was spectroscopically determined from the N II line, both on ordinary discharges produced in the laboratory and on powerful discharges, and was found to vary from 30,000 to 40,000°K. The maximum temperature of the electrode vapors was determined from the lines Al III, Sn IV, and Si IV, and was found to vary from 30,000 to 35,000°K. The temperature values proved to be almost independent of the circuit parameters. These high temperatures of the spark discharge in air by far exceed those of other sources, e. g., flames (1500 - 3000°K) or arc discharges (5000 - 7000°K), and are responsible for the particularities of the spark spectrum, i. e., the exceptional brightness of the lines and the excitation of ionic spectra. The electron concentration ($N_e \approx 10^{17} cm^{-3}$) exceeds that in an arc discharge by two orders of magnitude, and entails a line broadening and high intensity of the continuous spectrum. 3) Vapors of the electrode

Spectrum excitation in a...

material leave the electrodes without emitting visible light, and are only excited in the spark channel. A study of the dynamics of the motion of flares in the spark has shown that a jet is formed on the cathode. The dark space round the electrodes is of the order of 0.2 - 0.3 mm. The author thanks Professor S. L. Mandel'shtam for guidance, V. P. Shabanskiy and L. A. Vaynshteyn for discussing the theoretical part, as well as Senior Scientific Worker S. V. Lebedev, Engineer L. P. Malyavkin, and V. K. Bardin for assistance. S. I. Drabkina, I. S. Abramson, N. M. Gegechkori, S. I. Braginskiy, M. P. Vanyukov, V. I. Isayenko, L. D. Khazov, G. G. Dolgov, A. M. Leontovich, L. P. Malyavkin, N. K. Sukhodrev, A. D. Sakharov, B. M. Yavorskiy, V. A. Fabrikant, L. D. Landau, D. B. Gurevich, V. K. Prokof'yev, D. A. Rozhanskiy, V. I. Zimin, Ye. I. Vorontsov, V. M. Zimin, I. G. Nekrashevich, Lyubimov, S. M. Rayskiy, N. N. Sobolev, B. R. Lazarenko, and A. A. Mak are mentioned. There are 23 figures, 16 tables, and 72 references: 41 Soviet-bloc and 31 non-Soviet-bloc. The two most recent references to English-language publications read as follows: J. M. Somervill, S. T. Grainger. Brit. J. Appl. Phys., 7, 109 (1956); J. M. Somervill et al. Proc. Phys. Soc., 65B, 963 (1952).

Card 4/8

39298
S/048/62/026/007/029/030
B117/B144

AU 3430

AUTHORS: Uvarova, V. M., Sukhodrev, N. K., Pankova, A. A., Shpol'skiy, M. R., and Kovanova, A. N.

TITLE: New photomaterial of the NIKFI for spectrum analyses in the short-wave region of ultraviolet radiation

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26, no. 7, 1962, 967-968

f

TEXT: This report given at the XIV Soveshchaniye po spektroskopii (XIV Conference on Spectroscopy) deals with new films for vacuum ultraviolet radiation. The РМ-1Л (RM-1L) film with highly sensitive emulsion sensitized with luminohpores had been developed by the NIKFI (A. O. Kondakhchan) and the Shostkinskiy khimicheskiy zavod (Shostka Chemical Plant). The УФ-НИКФИ (UF-NIKFI) film little sensitive to visible light, with an emulsion consisting of highly concentrated silver halide and small amounts of gelatin, was produced by a method (thin-layer separation) developed by K. S. Bogomolov, M. Yu. Deberdeyev, A.A.Sirotinskiy and members of the NIIKhIMMASh. The new films, especially UF-NIKFI

Card 1/2

SUKHODREV, N.K.

Exciting spectrum in spark discharge. Acta chimica Hung 30 no.3:285-293 '62.

1. Fizicheskiy institut im.P.N. Lebedeva Akademii Nauk SSSR, Moskva V-17.

ACCESSION NR: AP4043038 S/0077/64/009/004/0286/0288

AUTHORS: Kalinkina, T. A.; Kovanova, A. N.; Pankova, A. A.; Sukhodrev, N. K.; Uvarova, V. M.; Shpol'skiy, N. R.

TITLE: NIKFI photographic materials for the vacuum ultraviolet region of the spectrum and their characteristics

SOURCE: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, v. 9, no. 4, 1964, 286-288

TOPIC TAGS: ultraviolet photographic film, film characteristic, film sensitivity, silver halide, / ISP 22 spectrograph, DFS 6 vacuum spectrograph

ABSTRACT: The solution of many problems has been hampered by the lack of photographic film sensitive to the vacuum ultraviolet (UF) spectrum ($\lambda < 2200$ Å) as a consequence of strong absorption in the gelatin of the emulsion layer of existing film. NIKFI developed five types of films sensitive to the far UF and soft x-ray region by using a new method of preparing photographic emulsion with a high concentration of silver halide in which a large portion of the gelatin is replaced by surface active substances. The five films differed in size of the AgHal microcrystals and had different sensitivities. The air-dried emulsion layer $\sim 10\,\mu$

Card 1/4

ACCESSION NR: AP4043038

thick was coated on a triacetate base and hardened so that water at temperatures up to 100C did not melt it. The photographic properties of the film (see Table 1 on the Enclosure) were measured in the visible, near UF region ($\lambda \sim 2300$ Å) and vacuum UF region (2000 Å $> \lambda >$ 200 Å). The films UF-2 and UF-3 were developed for 8 minutes in developer D-19 at 20C and the other film developed similarly for 4-6 minutes. The standard method of sensitometric measurements was used for the visible region; for $\lambda = 2300$ Å a mercury lamp in a ISP-22 spectrograph with a nine-stage attenuator was used. Characteristic curves (D versus log It) were obtained for all films at $\lambda = 2300$ Å. Films UF-1, UF-2 and UF-3 have low visible sensitivity ideal for "hot" object work. The vacuum UF region was studied using a DFS-6 vacuum spectrograph with a low voltage vacuum spark between titanium electrodes as a light source. The relative spectral sensitivities of films UF-1, UF-2, and UF-3 were obtained at points over the range 200-3000 Å and the contrast factor for these films for λ 200-800 Å ranged from 0.7 to 1.0, while the other films had a smaller contrast. The storage properties were good and were maximized by storage in a polyethylene pack at 5-7C (e.g., UF-1 stored two years lost 40% of its sensitivity at $\lambda = 2300$ Å, had no hazing, and preserved its contrast). The preservation of the film was attributed to the high colloidal stability

Card 2/4

ACCESSION NR: AP4043038

of the AgHal microcrystals and the presence of colloidal stabilizers in the emulsion layer. Orig. art. has: 1 table and 2 figures.

ASSOCIATION: Vsesoyuzny*y nauchno-issledovatel'skiy kinofotoinstitut (NIKFI) (All-Union Motion Picture and Photography Scientific Research Institute)

SUBMITTED: 080ct63 ENCL: 01

SUB CODE: OP,ES NO REF SOV: 002 OTHER: 000

Card 3/4

/EEC(k)-2/EEC(t)/T/EEC(b)-2/ /ASMP-2

/005/2003/2005

a focused

breakdown,

TOPIC TAGS: laser, ruby laser

laser beam spark

breakdown in the focus

following preliminary re-

an output pulse

beam

spark was found

was photographed with a

obtained

second.

CODE: EC

Card 1/2

ATD PRESS:

3154

AUTHOR: Mandel'shtam, S. L.; Pashinin, P. P.; Prokhorov, A. M.; Rayzer, Yu. P.; Sukhodrev, N. K.

[illegible] of a spark in the air due to a focused laser beam. II

[illegible] 40, no. 1, 1965,

TOPIC TAGS: gas breakdown, air breakdown, plasma heating, Doppler shift, laser beam scattering

ABSTRACT: [illegible] of earlier work (S. L. Mandel'shtam,

L 62754-65

ACCESSION NR: AP5019225

dicated that the ionization front moves toward the focusing lens with a velocity [illegible] of the scattered light. The motion of the ionized region under these conditions can be explained in terms of three mechanisms: 1) the hydrodynamic mechanism, 2) the light mechanism, and 3) the successive breakdown mechanism. All three mechanisms were fully discussed by Rayzer in an earlier article (ZhETF, 48, 1508, 1965). Under the experimental conditions [illegible] mechanism is considered [illegible] table. Values for the velocity of the detonation wave front [illegible] and [illegible] km/sec, and the plasma tempera- [illegible] estimated on the basis [illegible]

[illegible] Lebedeva AN SSSR (Physics [illegible]

[illegible] SUB CODE: EM

[illegible] 4055

L 22732-66 EWG(f) EWP(e) AT

ACC NR: AP6018343 SOURCE CODE: GE/0036/66/006/001/0001/0008

AUTHOR: Mandel'shtam, S. L.; Pashinin, P. P.; Prokhorov, A. M.; Rayzer, Yu. P.; Sukhodrev, N. K.

ORG: Physics Institute im. P. N. Lebedev, AN SSSR, Moscow (Fizicheskiy institut AN SSSR)

TITLE: Investigation of a spark in air formed during focusing of emission from a laser

SOURCE: Beitrage aus der Plasma Physik, v. 6, no. 1, 1966, 1-8

TOPIC TAGS: ~~lasers, nonlinear optics, air breakdown~~ laser emission, plasma decay, laser beam, ruby laser, plasma temperature, line shift, Doppler shift

ABSTRACT: An experimental investigation was conducted of air breakdown produced by a Q-switched ruby laser (pulse energy 2—2.5 j, pulse duration 30 μsec). The authors analyzed the last two stages of the breakdown process, which according to them can be subdivided into the following three stages: 1) the breakdown stage (rapid increase in the number of free electrons); 2) the quasi-stationary stage (dense plasma is maintained by the absorption of energy of the laser beam); and 3) the afterglow stage (decay of plasma after the laser pulse ceases). From the soft x-ray emission of the plasma (at about 10 Å) due to continuous recombination of N^{5+}, N^{6+}, N^{7+}, O^{6+}, O^{7+}, O^{8+} the maximum electronic temperature of the plasma in the breakdown region was determined to be ≈ 60 ev. The width of the laser line scattered by the plasma during the second stage was determined to be ≈ 1—1.4 Å; the shifting of the line was found to vary at different positions near the focal region of the laser beam with the maximum shift

Card 1/2

PERMYAKOV, E.S., kand. tekhn. nauk; SUKHODREV, V.M., gornyy inzh.; GRACHEV, F.G., kand. tekhn. nauk

Roller bit drilling in apatite open-cut mines. Gor. zhur. no.10:19-22 O '65. (MIRA 18:11)

1. Gornokhimicheskiy ordena Lenina kombinat "Apatit" im. S.M. Kirova (for Permyakov, Sukhodrev). 2. Gosudarstvennyy nauchno-issledovatel'skiy institut gornokhimicheskogo syr'ya (for Grachev).

GRACHEV, F.G., kand. tekhn. nauk; SMIRNOV, V.A., gornyy inzh.; YELIN, S.N., gornyy inzh.; SUKHODREV, V.M., gornyy inzh.; TOROCHKOV, G.S., gornyy inzh.

Using the BSSh-1 roller bit boring machine in apatite strip mines. Gor. zhur. no.8:37-39 Ag '64.

(MIRA 17:10)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut gornokhimicheskogo syr'ya (for Grachev, Smirnov). 2. Kombinat "Apatit" (for Yelin, Sukhodrev, Torochkov).

Sukhodreun, I. M.

Structures of the nitrates of rare-earth elements. V. I. Ivernova, V. P. [illegible] [illegible] V. Mar- [illegible] (M. V. Lomonosov State [illegible] 314-[illegible] No. 2. [illegible] for [illegible] [illegible] 92.5; [illegible] 6.78, 9.20, 11.7, 109, 8.90, [illegible] 78.8, 102.0, 91.8; [illegible], 112. J. W. Loweberg, Jr.

ACCESSION NR: AT4013982 S/3070/63/000/000/0137/0139

AUTHOR: Abramov, V. F.; Zakharov, V. I.; Sukhodreva, I.M.

TITLE: Attachment to Diffractometer URS-50I for Determining the Orientation of Germanium and Silicon Single Crystals

SOURCE: Novy*ye mashiny*i pribory* dlya ispy*taniya metallov. Sbornik statey. Moscow, Metallurgizdat, 1963, 137-139

TOPIC TAGS: germanium crystal orientation, silicon crystal orientation, crystallographic plane, diffractometer, metal crystal, crystal orientation

ABSTRACT: The use of ionization methods for registration of reflected X-rays permits a faster determination of crystallographic orientation of single crystals. G. F. Komovskiy and L. A. Voskresenskaya applied the URS-50I diffractometer for determination of orientation of germanium single crystals, and obtained a precision up to 30', provided that deviations of the crystallographic plane from the outer face of specimen were not greater than 6°.

Card 1/6

ACCESSION NR: AT4013982

bracket, and can have a maximum incidence angle of 40°. Remote control is provided to rotate the specimen about the horizontal axis in order to protect the operator. Fine adjustment is achieved by rotation of a handwheel on the receiver selsyn. One revolution of the handwheel produces a 6° rotation of the specimen. Rotation about the vertical axis is performed by the goniometer rotating mechanism. The described attachment permits the determination of the orientation of crystallographic planes (100), (110), (111) in monocrystallic germanium and silicon ingots when the deviation of these planes from the face planes of the ingots does not exceed 6.5; 17; 13° and 5;16; 13.5° for germanium and silicon, respectively. After determination of angle α, corresponding to the maximum intensity of reflected rays, a horizontal line is scribed on the ingot along the edge of the rectangular cut-out in the angle bracket. This line is perpendicular to the line of intersection of the face plane with the crystallographic plane. The scribed line on the ingot and the value of angle α determine the orientation for slicing of the ingot in planes parallel to the selected crystallographic plane. The attachment permits handling of ingots 15 — 45 mm in diameter and 100 mm long. In serial work, total errors in determination of orientation are $\pm$ 15'. Orientation time for one ingot is 5 minutes, and for checking a slice 2 minutes. Orig. art. has 1 figure.

Card 3/6

BR

ACCESSION NR: AP4013493 S/0181/64/006/002/0390/0392

AUTHOR: Sukhodreva, I. M.

TITLE: Dislocations arising during diffusion of phosphorus in silicon, observed by anomalous passage of x rays

SOURCE: Fizika tverdogo tela, v. 6, no. 2, 1964, 390-392

TOPIC TAGS: impurity diffusion, phosphorus, silicon, x ray, BSV 3 x ray tube, GUR 3 goniometer, URS 501 x ray equipment, MK emulsion, NIKFI photographic plate

ABSTRACT: The author is concerned with the possibility of studying the structure of a diffusion layer by anomalous passage of x-rays through the layer. She used samples of silicon cut along the (111) plane and allowed phosphorus to penetrate to a depth of about 100 microns. The surface concentration of phosphorus then proved to be about $2 \cdot 10^{20}$ cm^{-3}. X-ray photographs were made with Cu radiation from a BSV-3 tube. Immediately after diffusion and removal of the surficial oxide layer no anomalous passage of x-ray was detected. Destruction near the surface was apparently so great that passage of the wave field was prevented. The surface

Card 1/2

ACCESSION NR: AP4013493

was then etched with a combination of nitric, fluoric, and glacial acetic acids. Characteristic cell structure with point defects was then observed. A net of dislocations was detected, the individual dislocations lying along one of three directions 120° apart, all in the (111) plane. Results show that when P is diffused through dislocation-free silicon (at high concentrations of P), dislocations will develop and will reach deep into the silicon, reaching deeper when the diffusion of P is deeper. (The freedom from dislocation of the initial sample was verified by x-ray study.) Orig. art. has: 2 figures.

ASSOCIATION: none

SUBMITTED: 18Jul63 DATE ACQ: 03Mar64 ENCL: 00

SUB CODE: SS, EC NO REF SOV: 002 OTHER: 007

Card 2/2

L 00621-67 EWT(l)/EWT(m)/T/EWP(t)/ETI IJP(c) LHB/JD

ACC NR: AT6020038 (A) SOURCE CODE: UR/2564/65/005/000/0338/0343

AUTHOR: Sukhodreva, I. M.

ORG: none

TITLE: The study of the structure of germanium dendrite by the method of anomalous transmission of x rays

SOURCE: AN SSSR. Institut kristallografii. Rost kristallov, v. 5, 1965, 338-343

TOPIC TAGS: x ray crystallography, germanium compound, dendrite, crystal structure

ABSTRACT: The present article describes the study of defects and peculiarities of germanium dendrite crystallization by means of anomalous transmission of x-rays (Borrman effect). In the past such an effect has been observed only in perfect monocrystals. Using the URS-50-I device with a copper anode BSV-3 tube, the author was able to register the Borrman effect on dendrite samples which are not monocrystals; this indicates a high degree of perfection in the crystalline structure of dendrite samples under investigation although separate parts of the dendrite strips exhibit characteristic defects. The new method, illustrated by numerous x-ray photographs, allows a fast nondestructive determination of the presence and distribution of various types of defects (dislocations, pores, slipping traces, etc.)

Card 1/2

OSAULENKO, P.L., gornyy inzh.; ROZINOYER, B.L., gornyy inzh.;
SUKHODREV, V.M., gornyy inzh.

Practice of upward drilling of holes in the Kirov apatite mine. Gor. zhur. no.7:29-31 Jl '63. (MIRA 16:8)

1. Kombinat "Apatit".

SOV/180-59-2-31/34

AUTHORS: Lakomskaya, G.V., and Sukhodrovskaya, K.A. (Moscow)

TITLE: Contribution on the Acidity of Mineral Coals (K voprosu o kislotnosti iskopayemykh ugley)

PERIODICAL: Izvestiya akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, 1959, Nr 2, pp 164-167 (USSR)

ABSTRACT: The authors report their work on the study of the pH of coals. The first stage was the development of the method, which has some similarity in principle to that of Jacob (Ref 4). The results for various grades and deposits of coal showed that the pH value can vary over a wide value and is not characteristic of a grade. The pH does not depend on the total ash content, being affected apparently by both the organic and mineral part of the coal. The rate of oxidation of a coal was found to vary with variation in pH and this suggests that the improvement in storage properties obtained by treatment with calcium bicarbonate solution is due to its influence on the pH as well as to its pore-sealing action (Ref 7).

Card 1/2

SOV/180-59-2-31/34

Contribution of the Acidity of Mineral Coals

The work was carried out under the direction of P.K.Mel'.

There are 2 tables and 7 references, 4 of which are Soviet, 2 German and 1 English.

SUBMITTED: June 28, 1958

Card 2/2

SUKHODROVSKAYA, K.A.; LAKOMSKAYA, G.V.

Significance of coal acidity in determining its content in determining its content of peroxides. Trudy IGI 14:87-90 '60. (MIRA 13:12)

(Coal--Testing) (Oxidation)

FRIDMAN, G. Ye.; SUKHODROVSKAYA, K. A.; LAKOMSKAYA, G. V.; KARAVAYEV, N. M.

Coal carbonization during heating in the presence of water under pressure. Trudy IGI 17:76-87 '62. (MIRA 15:10)

(Coal—Carbonization) (Water vapor)

SUKHODROVSKIY, V.L.

Studying the formation of slopes in cold climate regions. Osn. metod.issl.po gliats. issl. no.15:31-44 '57. (MIRA 12:1)
(Mountains)

SUKHODROVSKIY, V.L.

Migrating thermokarst lakes in the Vitim Plateau. Izv. AN SSSR. Ser. geog. no.6:79-85 N-D '60. (MIRA 13:10)

1. Institut geografii AN SSSR.
(Vitim Plateau—Lakes)

S/ [illegible]9/61/000/012/[illegible]
D228/D305

Two years of [illegible]

[illegible] Island. Here two permanent scientific stations were organized: [illegible] Ch[illegible]rlyanisa (355 m above sea-level) in the alimentation region, and Sedova glacier (6[illegible] m above sea-level) in the [illegible] region. In addition, there were two portable [illegible] Dzhekson[illegible] (445 m) and Yelony Glacier (30 m) [illegible] field trips on Jukera and Kreys Islands and the [illegible] examination of the archipelago were also made. The main meteoro[illegible] forms of observations were made: the main observati[illegible] aerovisual [illegible] following forms of observations; actinometric observations on the [illegible] at the stations; gradient observations of the wind velocity at [illegible] observations at the stations and en route; humidity and on the wind velocity; observations [illegible] at the [illegible] and atmospheric humidity observations; observations [illegible] peratures and [illegible] hydrometric [illegible] and [illegible] in snow [illegible] observations [illegible] the stations; [illegible] ablation [illegible] drift [illegible] measurement observations [illegible] in the accumulation and ablation [illegible] glaciers; drift [illegible] on the temperature [illegible] to a depth of [illegible] laths in the glaciers; observations on the [illegible] at the permanent stations; [illegible] hand-bored holes ([illegible] to a depth of [illegible] and [illegible] m) and from 7 mechanically-bored holes [illegible] m and 17 to one of [illegible] m)

Card [illegible]

S/169/61/000/012/048/059
D228/D305

Two years of ..

In connection with the high summer air temperatures is ... among the preliminary results of the expedition's work. Da... marks, marking the edge of glaciers and permitting the dim... measurement of the material balance of the surface over a sub... year ... ed, have been established. The operating s... the expedition on Gukora Island is also appended. 6 referen...

Abstractor's note: Complete translation

Card 4/4

SUKHODROVSKIY, V.L.

Slope processes in the periglacial zone of the Franz Josef Land.
Izv. AN SSSR. Ser.geog. no.6:85-93 N-D '62. (MIRA 15:12)

1. Institut geografii AN SSSR.
(Franz Josef Land--Landslides)

MARKIN, V.A.; SUKHODROVSKIY, V.L.

Recent data on the contemporaneous glaciation of Franz Josef Land. Dokl. AN SSSR 148 no.3:658-660 Ja '63. (MIRA 16:2)

1. Institut geografii AN SSSR. Predstavleno akademikom D.I. Shcherbakovym.
(Franz Josef Land--Glaciers)

SUKHODROVSKIY, V.I.

Influence of the relief of the snow cover on the activity of snow water in periglacial conditions; based on the example of Franz Josef Land. Izv. AN SSSR. Ser. geog. no.4:97-102 Jl-Ag '65. (MIRA 18:8)

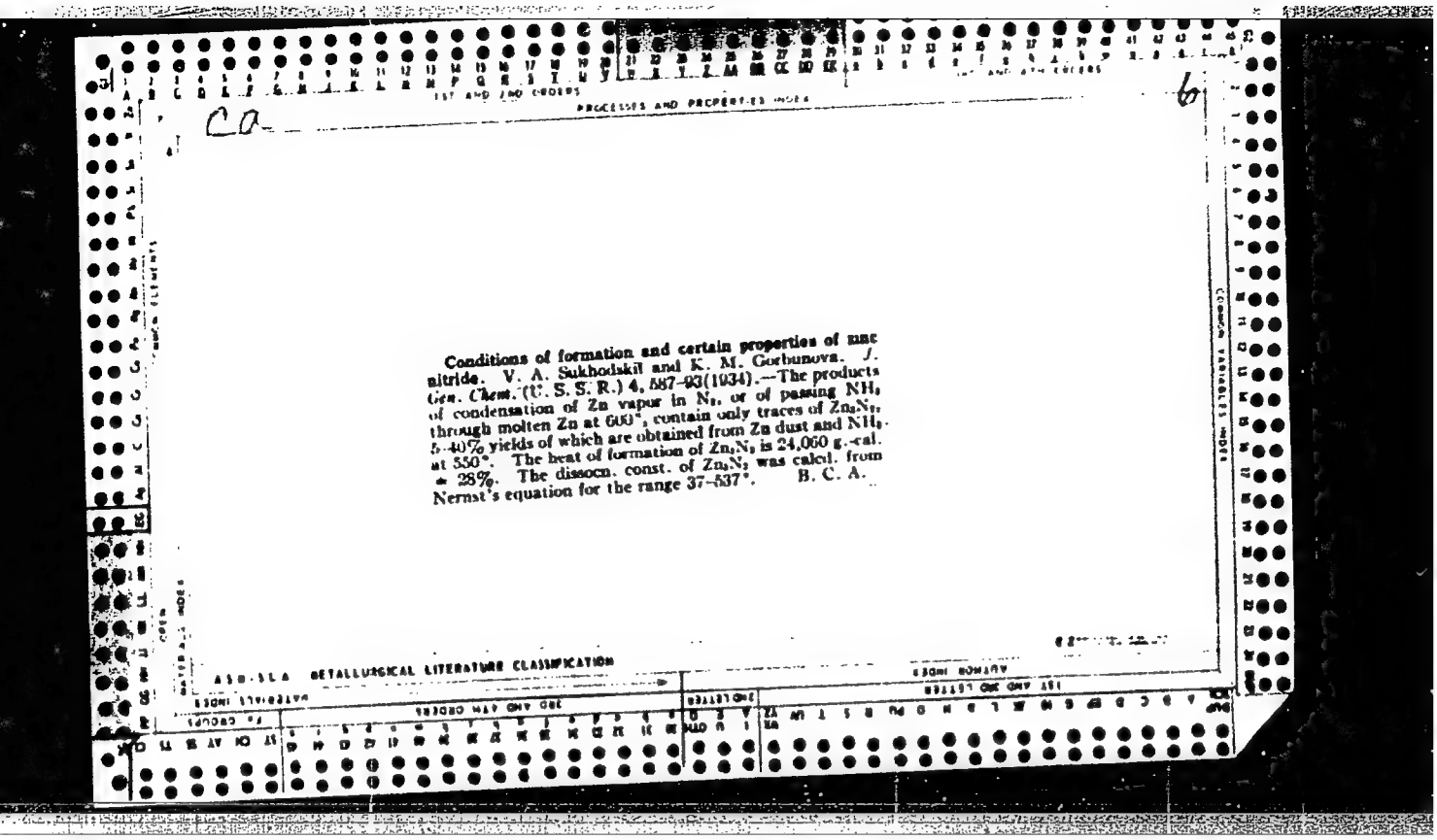
1. Institut geografii AN SSSR.

CA

2

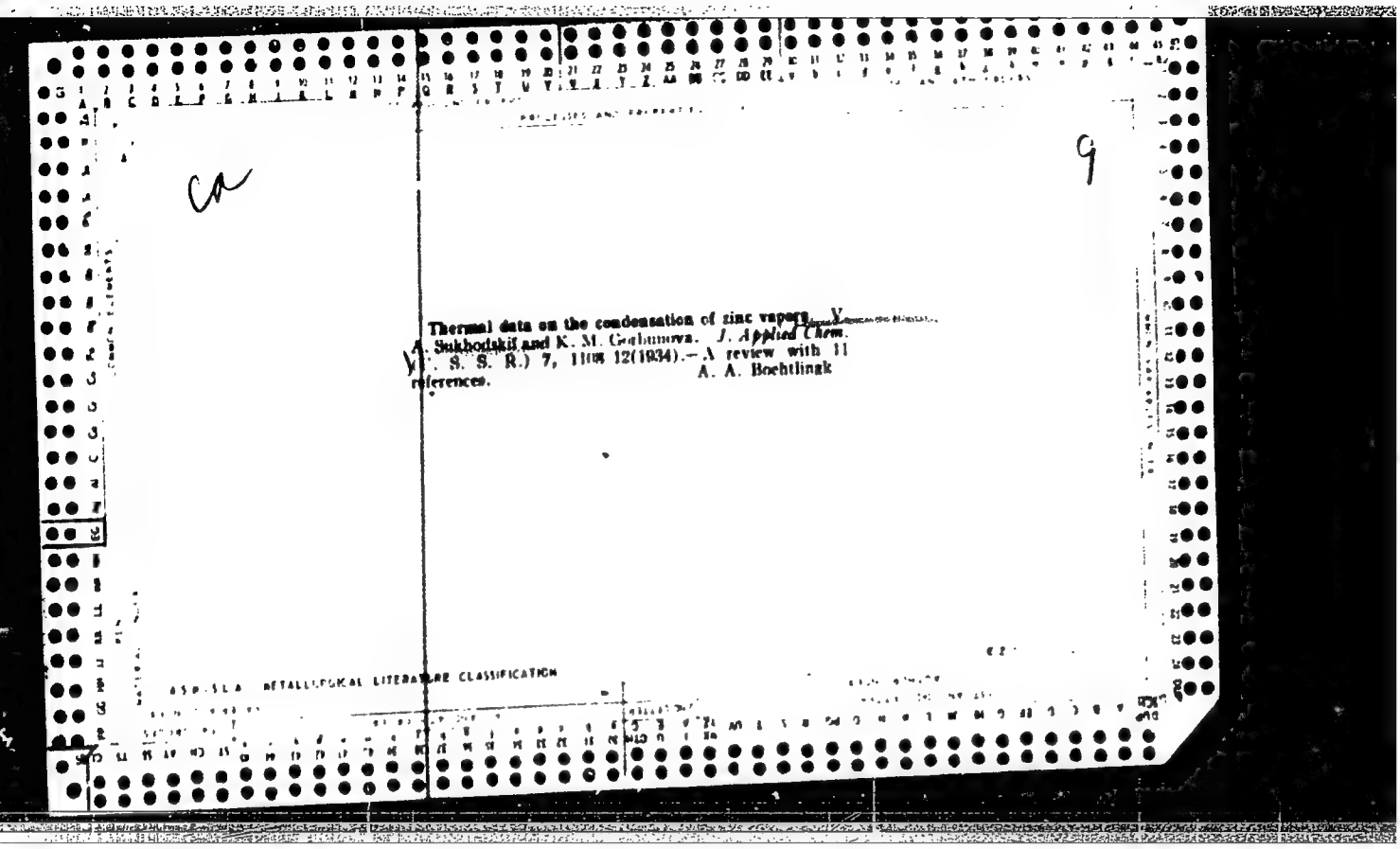
The vapor tension of bismuth chloride and bismuth bromide. E. V. Evskvich and V. A. Sukhodskii. *J. Russ. Phys. Chem. Soc.* **61**, 1[illegible] 1[illegible] The vapor tension curves for $BiCl_3$ and for $BiBr_3$ were obtained as well as their resp. b. ps. V. V.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Ca

Conditions of formation and certain properties of zinc nitride. V. A. Sukhodskii and K. M. Gorbunova. *J. Gen. Chem.* (U. S. S. R.) 4, 587–93(1934).—The products of condensation of Zn vapor in N_2, or of passing NH_3 through molten Zn at 600°, contain only traces of Zn_3N_2. 5–40% yields of which are obtained from Zn dust and NH_3 at 550°. The heat of formation of Zn_3N_2 is 24,060 g.-cal. ± 28%. The dissocn. const. of Zn_3N_2 was calcd. from Nernst's equation for the range 37–537°. B. C. A.

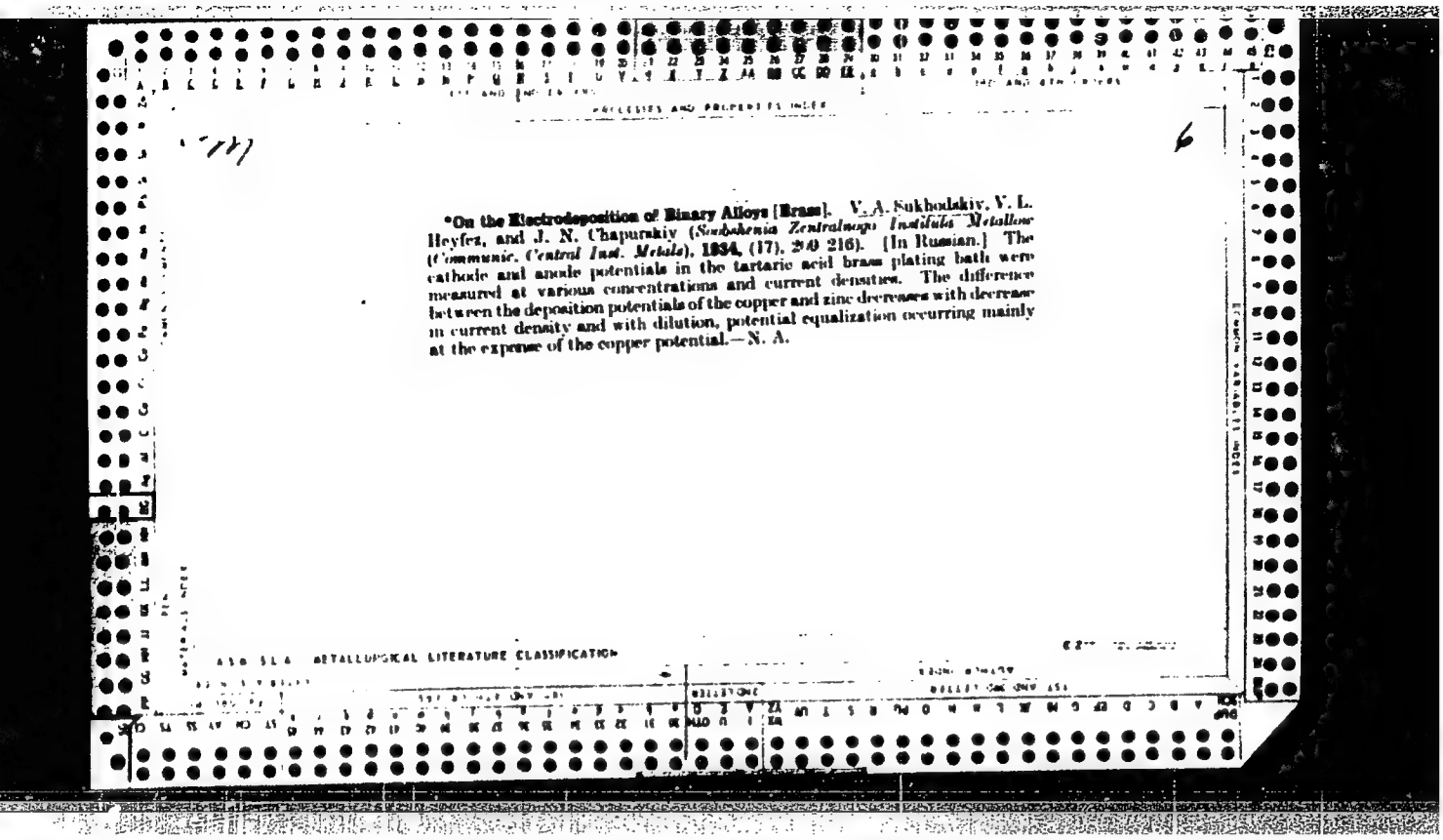


CA

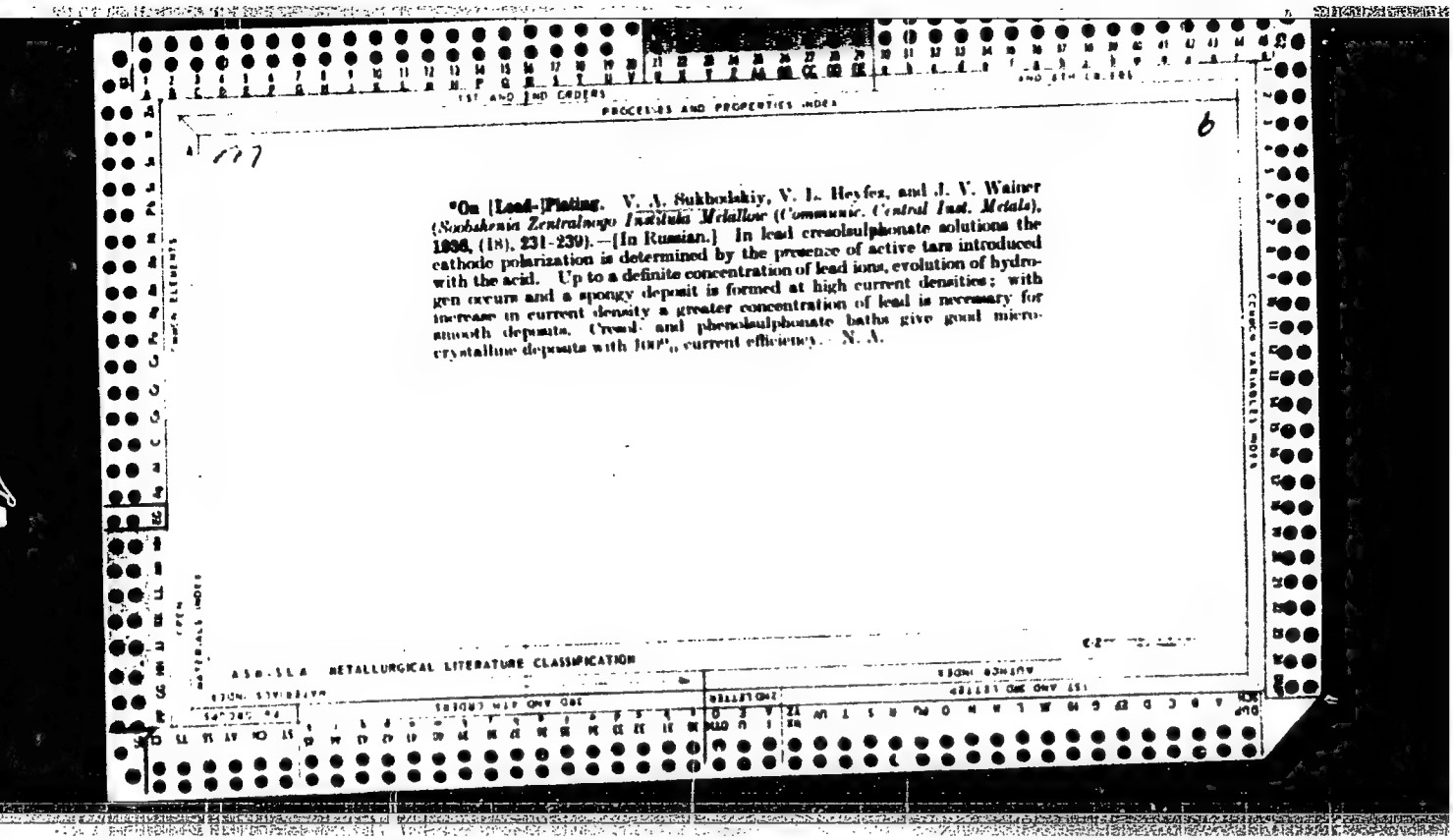
9

Thermal data on the condensation of zinc vapors. V. A. Sukhodskii and K. M. Gorbunova. *J. Applied Chem.* U. S. S. R.) 7, 1108-12(1934).—A review with 11 references.
A. A. Boehtlingk

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



***On the Electrodeposition of Binary Alloys [Brass].** V. A. Sukhodskiy, V. L. Heyfez, and J. N. Chapurskiy (*Soobshcheniia Zentralnogo Instituta Metallov* (*Communic. Central Inst. Metals*), **1934**, (17), 209–216). [In Russian.] The cathode and anode potentials in the tartaric acid brass plating bath were measured at various concentrations and current densities. The difference between the deposition potentials of the copper and zinc decreases with decrease in current density and with dilution, potential equalization occurring mainly at the expense of the copper potential.—N. A.



PROCESSES AND PROPERTIES INDEX

6

*On [Lead-]Plating. V. A. Sukhotskiy, V. L. Heyfez, and J. V. Wainer (*Soobshcnia Zentralnogo Instituta Metallov* (*Communic. Central Inst. Metals*), 1936, (18), 231–239).—[In Russian.] In lead cresolsulphonate solutions the cathode polarization is determined by the presence of active tars introduced with the acid. Up to a definite concentration of lead ions, evolution of hydrogen occurs and a spongy deposit is formed at high current densities; with increase in current density a greater concentration of lead is necessary for smooth deposits. Cresol- and phenolsulphonate baths give good microcrystalline deposits with four% current efficiency.—N. A.

A.S.M.-S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

Sukhodskiy, V.A.

S/180/60/000/02/028/028
E071/E135

AUTHOR: Ogurtsov, S.V.

TITLE: Scientific Conference on the Metallurgy, Chemistry and Electrochemistry of Titanium

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, 1960, Nr 2, pp 167-168 (USSR)

ABSTRACT: The conference took place on January 14-20 1960 in Moscow in the Institute of Metallurgy, Academy of Sciences, USSR. It was organised by the Committee for Coordination of Scientific Research on Titanium. About 400 representatives of academic and research institutions and works participated in the conference. The conference was divided into four sections: 1) raw materials and smelting of ores; 2) chemical technology and chlorination; 3) metallothermic methods of smelting titanium; and 4) electrolysis. The following papers were read:
Metallurgical evaluation of some new deposits (B.B. Dritrovskiy); State and prospects of improving the technology of smelting of ilminite concentrates (V.A. Reznichenko and V.I. Solov'yev);

Card 1/3

Thermodynamic investigations of titanium compounds (F.B. Khalinov and V.A. Reznichenko); An investigation of the process of reduction of iron-titanium concentrates with carbon (M.B. Rapoport); Some hydrodynamic and kinetic features of the process of chlorination of titanium dioxide in molten chlorides (Kim Men-rin); Oxidation of titanium tetrachloride with oxygen (G.S. Mornov, B.N. Melent'yev, V.A. Reznichenko); Utilisation of ilminite concentrates for the production of titanium dioxide pigment by the sulphuric acid method (M.L. Borodina, S.B. Shaykevich, N.A. Gubarova); An investigation of some properties of the system $TiCl_4 - AlCl_3 - FeCl_3$ (N.K. Druzhinina); An Investigation of phase equilibria liquid-vapour in systems formed by titanium tetrachloride with chloroanhydrides of mono- and tri-chloroacidic acids (G.V. Seryakov, S.A. Vaks, L.S. Sidorina); Determination of the summary content of carbon in titanium tetrachloride (G.V. Seryakov, S.A. Vaks, I.M. Golovanov); Basic conditions for standardised

Card 2/3

results of the process of production of titanium by the magnesium thermite method (S.V. Ogurtsov, V.A. Reznichenko, V.K. Ustinov, V.I. Korhevnikov, A.I. Dedkov); On the two stage method of production of titanium by the sodium thermite method (V.A. Reznichenko, S.V. Ogurtsov); Production of a high purity titanium (V.I. Batashov); The influence of the content of chlorine in a high purity titanium sponge on the process of smelting and on the quality of the metal produced (G.M. Vaynshteyn); The production of titanium and its alloys by refining of black anodes (Academician I.P. Bardin, A.D. Khromov, V.I. Lukashin); On the theory of refining of titanium (V.A. Sukhodskiy); Production of titanium by electrolysis of titanium dioxide in fluoride-chloride melts (I.P. Bardin, A.A. Kazayn); Electrolytic production of titanium from chloride-fluoride melts (V.M. Ioffe, N.N. Rozanov, N.A. Lyubimova); Electrolytic refining of titanium waste products (V.K. Lozovatskiy); and a number of other reports.
There are no figures, tables or references.

Card 3/3

S/180/60/000/004/009/027
E111/E452

Contribution on the Electrolytic Refining of Titanium

electrolytes are shown in Table 4. The author concludes that the reason for primary deposition of metallic titanium on the electrolyser walls in electrolysis of sodium chloride is the $Ti^{+++} + 2Na^{o} = Ti^{o} + 2Na^{+}$ reaction; sodium appears because it is reduced at the cathode. At the anode both solution of titanium and oxidation of sodium occur. During electrolytic refining, metallic lithium and potassium are present in the bath. There are 1 figure, 4 tables and 6 English references.

SUBMITTED: April 29, 1960

Card 2/2

SUKHODSKIY, V.A.; TSYPLAKOVA, M.M.

Effect of the central layer of electrolyte on the indices of the titanium electrorefining process. Titan i ego splavy no.8:237-241 '62. (MIRA 16:1)
(Titanium—Electrometallurgy) (Fused salts)

ACCESSION NR: [illegible] 000/016/0105/0109

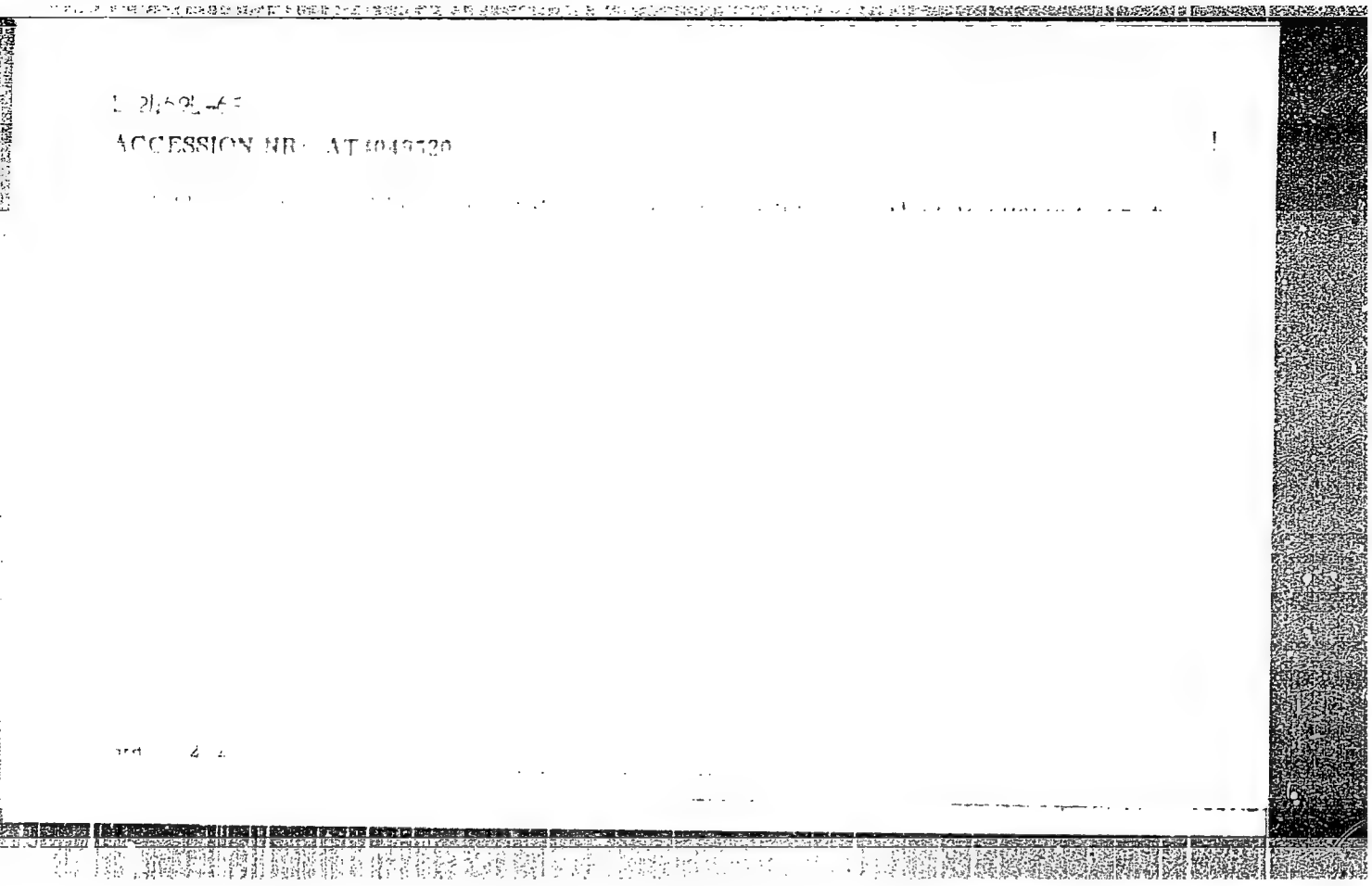
AUTHOR: Sokrogaz[illegible], P. G.

10

[illegible] into account in barometric

[illegible] data on

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001653810020-5"



ACCESSION NR: AT4049720

METLITSKIY, Z.A.; SUKHOIVANENKO, N.G.; NIKIFOROVA, G.V.

Thinning of apple flowers with the aid of DNOK compound [ammonium derivative of dinitroorthocresol], Kons. i ov. prom. 14 no.5:24-25 My '59. (MIRA 12:6)

1.Moskovskoye otdeleniye Vsesoyuznogo instituta rasteniyevodstva (for Metlitskiy). 2.Sovkhoz im. Timiryazeva (for Sukhoivanenko).
(Apple) (Fruit thinning) (Cresol)

STEFANOV, A.P.; SUKHOIVANENKO, P.Ya.

Photographic determination of the integral brightness of the solar corona of June 30, 1954. Astron.tsir. no.156:6-8 Ja '55 (MLRA 8:10)
(Sun--Corona)

34506
S/169/62/000/002/059/072
D228/D301

3,1810

AUTHORS: Ivanchuk, V. I. and Sukhoivanenko, P. Ya.

TITLE: Luminescence of hydrogen and helium in auroras

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 2, 1962, 20, abstract 2G135 (Mezhdunar. geofiz. god. Inform. byul., no. 3, 1961, 35-38)

TEXT: Auroral spectra were obtained in 1958 near Tiksi Bay. An СП-48 (SP-48) spectrograph was used in the observation. The spectral interval 4700 - 6600 Å was investigated. The spectrograph was mounted immovably, in the direction of the magnetic zenith. In a first approximation the resulting spectra may be divided into two groups in accordance with the classification proposed by Yu. I. Gal'perin (RZhGeofiz, no. 6, 1957, 5554): 1) "atomic", in which the atomic lines NI, NII, and OI and the Balmer lines H_α and H_β prevail; and 2) "molecular", in which the N_2^+ and $N_2O_2^+$ molecular bands

4

Card

S/169/62/000/006/078/093
39096
D228/D304

3,1810

AUTHOR: Sukhoivanenko, P. Ya.

TITLE: Doppler proton velocities according to observations of H_β emission in auroras

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 6, 1962, 22, abstract 6G155 (V sb. Polyarn. siyaniya i svecheniye nochn. neba, no. 7, M., AN SSSR, 1961, 7-13)

TEXT: The analysis of auroral spectra is given; these were obtained at a geophysical station in Tiksi Bay by means of СП-48 (SP-48) and СП-49 spectrographs. Hydrogen emissions were investigated, and the spectral velocity characteristics, which may be ascribed to protons injected into the atmosphere's upper layers, were determined. The H_β line appeared to be the most convenient for investigation. The observational data of the Doppler contours of H_β obtained by the author are tabulated. It is evident from the table that violet shift of the H_β contour line's maximum comprises 3 - 7 Å. According

Card 1/2

M

Country : USSR
Category: Cultivated Plants. Grains.

Abs Jour: RZhBiol., No 11, 1958, 48845

Author : Sukhoivanov, V.A.
Inst : Sci. Res. Inst. of Agriculture of the Central Chernozem Belt
Title : Application of Organic-Mineral Mixtures Under the Winter Cultures.

Orig Pub: Byul. nauchno-tekhn. inform. n.-i. in-ta s. kh. TSCHP, 1956, No 1, 17-20

Abstract: In 1951-1954, the V.V. Dokuchayev Institute of Agriculture developed methods of utilizing small doses of raw humus (6-8 cent/ha) in applying it together with the mineral fertilizers (1.5 cent/ha)

Card : 1/2

SUKHOIVANOV, V.A., kand.sel'skokhozyaystvennykh nauk; MUKHIN, V.G.

Side dressing of winter crops. Zemledelie 24 no.7:42-46 Jl '62. (MIRA 15:12)

1. Nauchno-issledovatel'skiy institut sel'skogo khozyaystva TSentral'no-chernozemnoy polosy imeni V.V. Dokuchayeva.
(Central Black Earth region—Wheat—Fertilizers and manures)

PANOVA, L.N.; SUKHOLET, A.Yu.

Determination of the average degree of polymerization of cellulose and of its fractional content under plant laboratory conditions. Khim.volok. no.5:69-70 '60. (MIRA 13:12)

1. TSentral'naya zavodskaya laboratoriya Kalininskogo kombinata. (Cellulose) (Polymerization)

SHEYKO, T.I.; SUKHOLET, A.Yu.

Ways for reducing sulfur content of stock dyed spun rayon fibers. Khim. volok. no.3:70-71 '63. (MIRA 16:7)

1. Kalininskiy kombinat iskusstvennogo volokna.
(Rayon) (Sulfur)

SUKHOLETOV, E.E.

Sampling device for trace-metal surveying. Inform. sbor. VSEGEI no.4:128-131 '56. (MLRA 10:4)
(Prospecting) (Boring machinery)

SUKHOLUTSKIY, G.M., inzh.; CHERKAS, A.I., inzh.

Applying reusable metal casings in laying concrete foundations.
Prom. stroi. 36 no.11:6-8 N '58. (MIRA 12:1)
(Foundations)

SUKHOLUTSKIY, N.I., inzh.

Ventilation of underground workings in the mining of shell rock.
Trudy NIIMesttoppproma no.17:177-183 '62. (MIRA 16:5)
(Mine ventilation)

GINZBURG, A.I.; NAZAROVA, A.S.; SUKHOMAZOVA, L.L.

Nigerite from Siberian pegmatites. Geol.mest.red.elem. no.9: 61-67 '61. (MIRA 14:9)
(Siberia--Nigerite) (Siberia--Pegmatites)

OVSISHCHER, Petr Il'ich; KOCHKINA, Nadezhda Nikolayevna; SHATS, S.Ya., kand. tekhn. nauk, retsenzent; MARTYNOV, A.P., inzh., retsenzent; SUKHOMEKHOV, V.P., nauchnyy red.; CHICHKANOVA, V.S., red. izd-va; KONTOROVICH, A.I., tekhn. red.; KRYAKOVA, D.M., tekhn. red.

[Handbook on transistor diodes and triodes] Spravochnik po poluprovodnikovym diodam i triodam. Leningrad, Gos. soiuznoe izd-vo sudostroit. promyshl., 1961. 239 p. (MIRA 14:8)
(Transistors—Handbooks, manuals, etc.)

SUKHOMEL, G. I.

On varying flow in open streams and structures on them Kyiv, Akad. nauk URSR, 1938.
138 p. Akademiia nauk URSR. Instytut vodnoho hospodarstva)

SUKHOMEL, G. I.

Dvizheniye vody cherez vodosliv s shirokim porogom "Gidrotekhnicheskoye Stroitel'stvo" No. 1, 1948

SUKHOMEL, G. I.

Sukhomel, G. I. "On two possible forms of movements of a supersonic flow through a pipe from a lavel jet," Izvestiya kiyevsk. politikhn. in-ta, Vol VIII, 1948 (On cover 1949), P. 103-06

SO: U-5241, 17 December 1953, (Letopis 'Zhurnal 'nykh Statey, No. 26, 1949)

SUKHOMEL, G. I.

36632. SUKHOMEL, G. I. i TSVETKOV, P. E. Rezul'taty Eksperimental'nogo Issledovaniya Turnogo Techeniya Vody v Shirokom Nizmom Rusle. Izvestiya In-ta Gidrologii i Gidrotekhniki (Akad. Nauk Ukr. SSR), T. V, 1949, c. 3-12. - Na Ukr. Yaz. - Rezyume Na Rus. Yaz. - Bibliogr: 5 Nazv.

SO: Letopis' Zhurnal'nykh Statey, Vol. 50, Moskva, 1949